June 2015

Approved Literacy Assessments

meeting the requirements of 279.68/ELI
for universal screening and progress monitoring
for 2015-2016 school year

Overview

This document contains information about assessments approved for use as universal screening and/or progress monitoring measures to meet the requirements of 279.68/ELI.

Background

In the winter of the 2012-2013 school year the Department requested and reviewed information and Proposals for a statewide universal screener (US) and progress monitoring (PM) assessment system for preschool through 6th grade literacy. There were two outcomes from this process. First, the Department reviewed all submitted assessments, and identified the Formative Assessment System for Teachers (FAST) and the Individual Growth & Development Indicators (IGDIs) as approved assessments to be purchased and supported across the state for all schools interested in participating in an early warning system for literacy to support implementation of a Multi-Tiered System of Supports (MTSS). Second, the results of the reviews were published to inform users of the relevant technical qualities of other literacy measures that might be used in local schools as they made selections for their own universal screening and progress monitoring measures.

Legislation funded at the end of the 2013 legislative session caused the Department of Education to revisit these reviews in early 2014 for the purposes of setting minimum standards for assessments approved for use in universal screening and progress monitoring of K-3 literacy as required by Iowa Code section 279.68 (review information for grades 4-6 is included to provide continuity). This document represents an updated summary of these reviews, providing a list of assessments currently approved to meet the requirements of Iowa Code section 279.68 based upon standards for the following statistics: reliability and validity for all assessments, area under the curve, sensitivity/specificity, and number of equivalent forms and reliability of slope for progress monitoring assessments. Please refer to the appendix of this document for definitions of each of the required statistics.

The scoring rubrics used the following scale. All assessments are required to at least minimally meet the standard for each required statistic with a score 2 or higher.

4	3	2	1	0
exceeds standard	desired standard	minimally meets standard	below standard	missing data or unacceptable

In order for schools to meet the requirements of 279.68, the battery of assessments must include measures that collectively meet the standards at each grade from K to 3 for universal screening and progress monitoring assessments. Ideally, this battery of assessments should be created to gather universal screening and progress monitoring information as efficiently as possible. Considerations should include the effectiveness of the measures, as well as the number of assessments, amount of time needed to administer the assessments, the costs of the assessments, both in actual dollars, but also in terms of issues such as training and related technology requirements.

Check marks indicate where an assessment met the minimum requirements (required grades are shaded). See Appendix B for details on the specific requirements. Assessments marked with an asterisk (*) have ambiguous, incomplete or no established benchmarks at one or more screening window. These assessments may not be adopted without consultation with Iowa Department of Education staff to clarify the benchmarks to be used.

	Universal Screening							Progress Monitoring							Other Information			
State-Supported Assessments	K	1	2	3	4	5	6	K	1	2	3	4	5	6	Admin time per student (min)	Access to Student Data After Entry	Teacher Training Required (# of Days)	Benchmarks Available?
FAST Adaptive Reading (aReading)	✓	✓	✓	✓	✓	✓									6 to 20	Instant	0.5	Yes
FAST Curriculum Based Measurement for Reading (CBM-R)		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	1 to 3	Instant	0.5	Yes
FAST earlyReading First Grade Composite		✓													3 to 5	Instant	0.5	Yes
FAST earlyReading Kindergarten Composite	✓														5 to 7	Instant	0.5	Yes
FAST earlyReading Decodable Words									✓						1	Instant	0.5	Yes
FAST earlyReading Letter Naming								✓							1 to 3	Instant	0.5	Yes
FAST earlyReading Letter Sounds								✓							1 to 3	Instant	0.5	Yes
FAST earlyReading Nonsense Words								✓	✓						1	Instant	0.5	Yes
FAST earlyReading Onset Sounds								✓							1 to 3	Instant	0.5	Yes
FAST earlyReading Sight Words 150									✓						1 to 4	Instant	0.5	Yes
FAST earlyReading Word Blending								✓	✓						1 to 3	Instant	0.5	Yes
FAST earlyReading Word Segmenting								✓	✓						1 to 3	Instant	0.5	Yes

	Universal Screening							Progress Monitoring							Other Information			
Other approved assessments	K	1	2	3	4	5	6	K	1	2	3	4	5	6	Admin time per student (min)	Access to Student Data After Entry	Teacher Training Required (# of Days)	Benchmarks Available?
AIMSweb - Letter Sound Fluency	✓							✓							1	Instant	0	Yes
AIMSweb - Letter Naming Fluency	✓							✓							1	Instant	0	Yes
AIMSweb - Maze				✓	✓	✓	✓				✓				3	Instant	0	Yes
AIMSweb - Reading CBM *		✓	✓	✓	✓	✓	✓		✓	✓	✓				3	Instant	0	No fall 1st
DIBELS Next Composite		✓	✓	✓	✓	✓		✓	✓	✓					1 to 6	Instant	1 to 2	Yes
easyCBM *				✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	45 to 50	Same Day	1	Multiple?
Edcheckup Maze Reading Passages *			✓		✓										3	Instant	0.5	Multiple?
Edcheckup Standard Reading Passages *			✓	✓	✓				✓						3 to 5	Instant	0.5	Multiple?
Gates MacGinite Reading Tests, 4th Edition *				✓	✓										75 to 100	Over 5 days	0	Same F, W,S
mCLASS:Reading 3D Text, Reading, and Comprehension *		✓	✓	✓											5 to 8	Instant	1 to 2	Unclear
Observation Survey of Early Literacy Achievement		✓													>15	Same Day	2	Yes
Phonological Awareness and Literacy Screening (PALS 1-3) *		✓		✓											25	Instant	1	No winter
Phonological Awareness and Literacy Screening (PALS-K) *	✓														30	Instant	0.5	No winter
STAR Early Literacy	✓		✓	✓				✓	✓	✓	✓				12.5	Instant	0	Yes
STAR Reading			✓	✓	✓	✓	✓				✓	✓	✓	✓	11	Instant	0	Yes
Texas Primary Reading Inventory (TPRI) *	✓	✓	✓	✓											1 to 5	Same Day	0.5	Multiple?

Appendix A

The following definitions are intended to provide a general explanation of the meaning and application for each of the required statistics and/or reporting elements for early literacy assessments. The minimum and desired values from the evaluation are also reported here.

Reliability

Reliability is a common measure of an important quality of an assessment: consistency. There are several ways to describe reliability. The most common are: internal consistency (do the parts of the test work together to measure the same thing, or are there contradictions among the items?), consistency over time (can we trust that the test will measure consistently over time?), and consistency across testers (can the test be administered and scored to get consistent results?). *Using a scale from 0.0 to 1.0, a reliability value of at least 0.70 is required, and a value above 0.80 is desired.*

Validity

Validity statistics are used to help understand if the test results will allow users to make appropriate decisions. Many things can go into this understanding. For example, we ask how well the test results compare to another known measure of reading (this is called criterion validity). A universal screening or progress monitoring test that compares favorably with another measure of reading increases the confidence that the results of the screening test are related to the student's reading ability and that our decisions about that student's skills are valid. *Using a scale from 0.0 to 1.0, a validity coefficient of at least 0.3 was required, and at least .50 is desired.*

Area under the curve (AUC)

Area under the curve (or AUC) is shorthand for area under the receiver operating characteristic curve, which is a statistical calculation that represents the relative value of a test for accurately classifying outcomes. The closer to 1.0 the AUC value, the better the test at predicting student success. A test with an AUC value of 0.5 predicts at the same rate as chance – in other words, the test is no better than flipping a coin. *Using a scale from 0.0 to 1.0, an AUC value of at least .70 is required, and a value of .80 is desired.*

Sensitivity/Specificity

Sensitivity and Specificity are statistics that represent the ability of the test to correctly identify students. Sensitivity represents the ability of the test to correctly identify the positive cases (students predicted on track for success). Specificity represents the ability of the test to correctly identify the negative cases (students predicted not on track for success). In the case of universal screening, the aim is for high sensitivity for a prediction of students on track to be successful readers. A test with a high value for sensitivity (approaching 1.0) will rarely miss identifying students who are on track to be successful readers. *Using a scale from 0.0 to 1.0, a sensitivity/specificity value of at least .70 is required, and a value of .80 is desired.*

Benchmarks for fall, winter and spring
Benchmarks are established to identify a level of performance which identifies students to be on track to be successful readers. These benchmarks are used to make universal screening decisions and to set progress monitoring goals. *Assessments should have valid benchmarks established for each universal screening window: fall, winter and spring. Some assessments reviewed do not appear to have benchmarks for each grade and season.*

Number of forms of demonstrated equivalence
When using an assessment to monitor progress weekly it is important to make sure that there are enough forms to avoid a practice effect. It is also important to reduce any variation in test results over time caused by forms that are not of similar difficulty. *At a minimum, at least ten forms are required, along with some evidence from the test developer that a reasonable process was used to ensure that the forms are equivalent. At least 15-20 forms are desired, as well as the use of more than one "industry standard" approach to determine the equivalence of forms.*

Reliability of Slope
Reliability of slope is a statistic that represents the ability of the test to produce a consistent measure of student growth over time. A test with a less-reliable slope will do a poor job of accurately reflecting student improvement. A test with a very reliable slope will show results that best represent the student's improvement over time. *Using a scale from 0.0 to 1.0, a reliability of slope value of at least 0.60 is required, and a value above 0.70 is desired*.

Administration time
It is important to find tests that are efficient. Since testing takes away from instructional time, it is a good idea to minimize the amount of time spent testing. If two tests are otherwise similar (AUC, reliability, etc.), the test that takes less time may be preferred.

Accessibility of student data
For the purposes of universal screening and monitoring progress it is important for teachers to gain access to results quickly in order to begin using the data. A lag between testing and availability of data will cause the system to be less responsive to student needs. It is preferred to be able to receive and use results very quickly after testing.

Teacher training
The amount of training needed to reliably administer the tests and use the results is important for planning and resource allocation.

Appendix B

This table shows all rubric score ratings of each required data element for each assessment and grade submitted for review (blank = not submitted for review).

State-Supported Assessments	Area Under the Curve							Sensitivity/Specificity							Number of Forms							Reliability of Slope							Reliability							Validity						
	K	1	2	3	4	5	6	K	1	2	3	4	5	6	K	1	2	3	4	5	6	K	1	2	3	4	5	6	K	1	2	3	4	5	6	K	1	2	3	4	5	6
FAST Adaptive Reading (aReading)	3	4	3	4	4	3		3	3	3	3	3	3		0	0	0	0	0	0		0	0	0	0	0	0		4	4	4	4	4	4		3	4	4	4	4	3	
FAST Curriculum Based Measurement for Reading (CBM-R)		3	4	3	3	3	3		3	3	3	2	3	2		3	3	3	3	3	3		4	4	4	4	4	4		4	4	4	4	4	4	4		4	4	4	4	4	4	4
FAST earlyReading Decodable Words	2	4						1	3						4	4						1	4						4	4						1	4					
FAST earlyReading First Grade Composite		3							2																					4							4					
FAST earlyReading Kindergarten Composite	3							3																					2							4						
FAST earlyReading Letter Naming	2	0						1	0						4	4						2	0						4	0						2	0					
FAST earlyReading Letter Sounds	3	0						2	0						4	4						4	0						2	0						3	0					
FAST earlyReading Nonsense Words	2	4						2	2						4	4						3	4						4	3						2	3					
FAST earlyReading Onset Sounds	3							2							2							4							2							3						
FAST earlyReading Sight Words 150		3							2							4							3							4							3					
FAST earlyReading Word Blending	2	3						2	2						4	4						3	3						2	4						3	3					
FAST earlyReading Word Segmenting	2	2						2	1						4	4						2	3						3	3						3	3					

Other approved assessments	Area Under the Curve							Sensitivity/Specificity							Number of Forms							Reliability of Slope							Reliability							Validity						
	K	1	2	3	4	5	6	K	1	2	3	4	5	6	K	1	2	3	4	5	6	K	1	2	3	4	5	6	K	1	2	3	4	5	6	K	1	2	3	4	5	6
aimsweb - Letter Sound Fluency	4	3						3	3						4	4						4	0						3	0						3	2					
aimsweb Letter Naming Fluency	4	3						3	3						4	4						4	0						4	0						4	4					
aimsweb- Maze		0	0	3	3	3	3		0	0	2	2	2	2		3	4	4	4	4	4		4	2	3	0	0	0		0	1	2	2	2	2		0	0	3	3	3	2
aimsweb- Reading CBM		3	4	3	3	3	3		2	2	2	2	2	2		3	4	4	4	4	4		4	2	3	0	0	0		4	4	4	4	4	4		3	3	4	4	4	3
DIBELS Next Composite	1	4	3	4	3	3	4	1	2	2	2	2	2	1	4	4	4	4	4	4	4	3	3	2	1	1	1	0	4	4	4	4	4	4	4	3	4	4	4	4	4	4
easyCBM	0	0	0	4	3	3	3	0	0	0	2	2	2	2	4	4	4	4	4	4	4	3	4	2	2	2	1	3	3	4	4	4	4	4	4	4	3	3	4	4	4	3
Edcheckup Maze Reading Passages		0	3	3	4	3	3		0	2	1	2	1	1		4	4	4	4	4	4		1	1	1	1	1	1		0	2	2	2	2	2		0	3	3	3	3	3
Edcheckup Standard Reading Passages		0	4	3	3	3	3		0	3	2	2	1	1		4	4	4	4	4	4		2	1	1	1	1	1		4	4	4	4	3	4		3	4	3	4	3	4
Gates MacGinite Reading Tests, 4th Edition	0	0	0	4	4	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4	0	0	0	4	4	0	0
mCLASS:Reading 3D Text, Reading, and Comprehension	3	3	3	3	0	0		3	3	3	3	0	0		0	0	0	0	0	0		4	4	3	4	2	0		2	3	3	3	0	0		4	4	4	4	4	4	
Observation Survey of Early Literacy Achievement		3							3							0							0							3							4					
Phonological Awareness and Literacy Screening (PALS 1-3)		4	0	2					4	0	3					0	0	0					0	0	0					4	4	4					4	4	3			
Phonological Awareness and Literacy Screening (PALS-K)	4							4							0							0							4							4						
STAR Early Literacy	2	2	3	3				3	1	2	2				4	4	4	4				3	3	3	3				2	3	3	3				4	2	3	3			
STAR Reading	0	0	3	3	3	3	3	0	0	2	2	2	2	2	4	4	4	4	4	4	4	0	0	0	3	3	3	2	3	4	4	4	4	4	4	0	4	4	4	4	4	4
Texas Primary Reading Inventory (TPRI)	4	4	4	4				4	4	3	4				0	0	0	0				0	0	0	0				4	3	3	3				3	4	4	3			

4	3	2	1	0
exceeds standard	desired standard	minimally meets standard	below standard	missing data or unacceptable